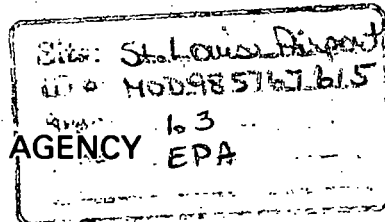




UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VII  
726 MINNESOTA AVENUE  
KANSAS CITY, KANSAS 66101



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MEMORANDUM

CMPL SECTION

SUBJECT: St. Louis Airport Drum Site

FROM: *per* William L. Brinck  
Senior Nuclear Engineer *Carl M. Walter*

TO: John Chen  
Superfund

Radiological data on samples taken from the subject site were reviewed at your request.

There are numerous questions regarding the collection and analysis of the samples. These questions have been related to you on a marked-up copy of the data. Because of these questions, I feel that the data can only be used to qualitatively assess the site.

The data does not indicate that the site has significant contamination by radionuclides. The sludge sample shows levels of radium and thorium at about 10% of the soil concentrations reported. The water samples, while indicating concentrations of radioactivity above the drinking water standard, are well below the levels in the soil. The radium and thorium levels in the water may be attributable to sediment in the water. This cannot be checked unless the sampling and analytical procedures are available.

Based on the data available, even with its obvious flaws, it appears that the samples represent only natural radioactivity from the soil at the site and do not represent radioactive contamination.

30285383



Superfund

St. Louis Airport Drum Site  
Radiological Data

| Sample No.              | Sample Type | Radium 226           | Thorium 232           | Uranium 238 | Sample Desc.   |
|-------------------------|-------------|----------------------|-----------------------|-------------|--|
| AA12493/MC<br>A02050688 | Fit sludge  | 120 +/- 40<br>pCi/l  | 180 +/- 40<br>pCi/l   |             |  |
| mca01908sw              | Fit water   | 30 +/- 10<br>pCi/l   | 75 +/- 20<br>pCi/l    | < 165 pCi/l |  |
| AA12478/MC<br>A005-01B  | SOIL        | 1.0 +/- 0.1<br>pCi/g | 1.1 +/- 0.2<br>pCi/g  | <3.4 pCi/g  | Soil/spoils pile<br>from above drum<br>level, on west<br>side                  |
| AA12479/MC<br>A006-02A  | Soil ?      | 0.7 +/- 0.1<br>pCi/l | 0.8 +/- 0.1<br>pCi/gm | <3.9 pCi/l  |  |
| AA12480/MC<br>A007-02B  | Soil        | 0.7 +/- 0.1<br>pCi/l | 0.7 +/- 0.1<br>pCi/gm | <4.1 pCi/l  | soil/soils pile<br>from<br>intermediate<br>level below<br>drums, north<br>side |
| AA12481/MC<br>A004-01A  | Soil        | 1.2 +/- 0.2<br>pCi/l | 1.3 +/- 0.2<br>pCi/gm | <2.8 pCi/l  | Soil/spoils pile<br>from above drum<br>level, on west<br>side 0-6"             |
| AA12482/MC<br>A008-03A  | Soil        | 1.0 +/- 0.1<br>pCi/l | 1.3 +/- 0.2<br>pCi/g  | <4.3 pCi/l  | Soil/spoils pile<br>final level<br>below drum, west<br>side 0-6 "              |
| AA12483/MC<br>A009-03B  | soil        | 1.0 +/- 0.1          | 1.2 +/- 0.2           | < 4.5       | Soil/spoils pile<br>final level<br>below drums,<br>north side 12-18<br>"       |
| AA12484/MC<br>A010-04A  | soil        | 1.0 +/- 0.1          | 0.8 +/- 0.1           | < 4.3       | soil/spoils pile<br>final level<br>below drums,<br>east side 0-6 "             |
| AA12485/MC<br>A011-04B  | soil        | 1.1 +/- 0.2          | 0.9 +/- 0.1           | < 4.2       | spoils pile<br>final level<br>below drums,<br>east side                        |
| AA12486/MC<br>A012-05A  | soil        | 1.0 +/- 0.1          | 1.1 +/- 0.2           | <1.0        | spoils pile of<br>truck bed, south<br>side 0-6 "                               |

St. Louis Airport Drum Site  
Radiological Data

| Sample No.                  | Sample Type | Radium 226  | Thorium 232 | Uranium 238 | Sample Desc.   |
|-----------------------------|-------------|-------------|-------------|-------------|--|
| AA12487/MC soil<br>A013-05B |             | 0.9 +/- 0.1 | 1.2 +/- 0.2 | <5.0        | spoils pile of<br>truck bed, south<br>side 12-18 "       |
| AA12488/MC soil<br>A014-06A |             | 1.1 +/- 0.2 | 1.1 +/- 0.2 | <3.2        | Approx. 21 feet<br>west of E2750,<br>N2750 0-6 "         |
| AA12489/MC Soil<br>A015-06B |             | 0.9 +/- 0.1 | 1.1 +/- 0.2 | none        | Approx. 21 feet<br>west of E2750,<br>N2750 6-12 "        |
| AA12490/MC Soil<br>A016-06C |             | 0.8 +/- 0.1 | 0.9 +/- 0.2 | < 6.3       | Approx 21 feet<br>west of E2750,<br>N2750 12-18 "        |
| AA12491/MC Soil<br>A017-07A |             | 1.1 +/- 0.2 | 1.1 +/- 0.2 | < 3.3       | Approx. 20 feet<br>west of second<br>sump pond 0-6 "     |
| AA12492/MC soil<br>A018-07B |             | 1.3 +/- 0.2 | 1.6 +/- 0.2 | < 1.4       | Approx. 20 feet<br>west of second<br>sump pump 6-12<br>" |